DOCUMENTS, REPORTS, AND LEGISLATION

Industries and Commerce

GOVERNMENT MARKETING OF AUSTRALIAN WHEAT. In connection with Mr. Duffus's article in the March issue of this REVIEW on "Government Control of the Wheat Trade in the United States," it may be of interest at the present time to add the following brief account of the experience of Australia along similar lines.

The first Australian wheat harvest following the outbreak of European hostilities (the crop of 1914-1915) was the poorest that country had had in years. In fact it was not sufficient to meet domestic needs and foreign wheat had to be imported. In view of the shortage and the high prices caused by the war, the farmers were encouraged to sow a greatly increased wheat acreage. This resulted in an exceedingly favorable yield in 1916 (over 180,000,000 bushels), which, combined with inadequate storage facilities and a shortage of ocean transport, threatened a serious price cutting at harvest time. The wheat farmers accordingly were very much disgruntled, but because of their impoverishment through the failure of the previous crop, they could not afford to hold their grain from the market. Grain buyers, moreover, because of the disturbance in the usual methods of marketing and high interest rates on loans, refused to accumulate wheat or undertake its export. Accordingly the commonwealth government (which, by the way, was a "labor government") was compelled to take steps to save the wheat growers from disaster by introducing one of the most interesting socialistic experiments of modern times.

The first step was to require the pooling of the whole wheat crop. No one, whether producer or dealer, was permitted to buy or sell wheat excepting through the government. The private chartering of vessels for wheat loading and export was also prohibited. This gave the commonwealth government a complete monopoly of the wheat trade and, by thus eliminating competition, ocean tonnage rates were kept down.

For the purpose of centralized control of the general crop movement, a Federal Board of Advice, consisting of grain dealers and shippers was instituted in Australia, and another in London. The London board was composed chiefly of the former agents and commission merchants of Australian wheat exporters. Under the supervision of the home Federal Board of Advice, local committees were organized in the wheat-growing states of the commonwealth. These local committees were

made up of representatives of farmers, merchants, millers, and government officials.

The general plan of wheat marketing instituted was to have the farmers deliver their crops to the state commissions. For this purpose the state commissions appointed as their agents local grain dealers or millers having facilities for handling and storing the grain. These were paid a fixed fee per bushel for the service of receiving, stacking, storing, and shipping.

No uniform or fixed price was paid the farmers for their product. When the farmer brought in his wheat to the local government agent, he was given an interim receipt certifying the quantity, quality, and weight received. The farmer then presented his receipt to the state commission in his district and received in exchange scrip certificates. This scrip had no face value, but the farmer could take it to a bank and receive a minimum advance (in 1916) of 2s. 6d. per bushel (about 60 cents). The government guaranteed the banks against loss on this minimum advance. Thus, the wheat growers were practically guaranteed a minimum price for their wheat, and at the same time they were offered participation in any advance that might take place in the world's market during the period of disposing of the crop.

The wheat was sold by the government both at home and abroad. The export marketing was done by the Federal Board of Advice in cooperation with its London committee. The price to home consumers was fixed from time to time by the state commissions in accordance with fluctuations in the world market value.

The lending of the banks on the scrip certificates would have been a serious strain on their funds were it not for the fact that the payment received by the government for the sale of the wheat was redeposited in these banks. In order to help the financing of the crop, local mills were required to pay 90 per cent in advance for their purchases. Similarly, on payments in London for export shipments, the local banks credited the government with the amounts. Notwithstanding these measures, however, there was considerable tying up of bank funds in scrip loans and it is believed that a considerable part of the advances to farmers by the banks was debited to the government, against which was credited the receipts from wheat sales deposited by the government.

The farmers who did not care to receive from the banks the minimum guaranteed price for their crop were allowed interest on this amount at the rate of 5 per cent per annum, but no interest was charged the farmers on scrip advances by the banks. The scrip cer-

tificates, moreover, were negotiable and holders could dispose of their equity in them. The scrip therefore circulated much as grain warehouse receipts circulate in this country. There was at times considerable speculation in them, the price fluctuating in accordance with changes in the international wheat market. The ultimate value of the crop is determined when the whole of the crop is marketed, but interim dividends were paid to holders from time to time.

The success of this socialistic plan of wheat marketing would no doubt be complete were it not for transportation and shipping difficulties. Though world wheat values since the war have steadily advanced, ocean tonnage has become more scarce. The Australian government therefore has found itself the possessor of large quantities of wheat which cannot be marketed. Much of this grain has been damaged by mice and insects. From latest reports of the International Agricultural Institute at Rome, the wheat from last year's Australian crop still unmarketed is 130,000,000 bushels, and the recent harvest is said to have added 120,000,000 bushels to this amount. With totally inadequate warehouse or other storage facilities, it is extremely doubtful whether this vast quantity of grain can be protected from pests. Moreover, the carrying over of such huge stores imposes a heavy strain on the Australian banks. If the recent efforts to provide tonnage to transport Australia's wheat surplus to American Pacific coast ports do not meet with success, the producer who still holds an equity in this surplus is likely to become discouraged and, rather than submit to the pooling arrangement, he will undoubtedly grow some other crop than wheat.

A. M. SAKOLSKI.

FOOD TRADE.. The Merchants' Association of New York has recently issued the *Report of the Food Problem Committee.* This committee, appointed in April, 1917, set itself the task: (1) of finding out what previous investigations had been made and examining available data in order to acquaint itself with the various phases of the food problem; (2) of making a clear analysis of the problem; (3) of determining the means of bringing about a better understanding and the improvement of conditions. This was done for the purpose of presenting an exhaustive report to the officials of the Food Administration whose appointment was anticipated. The report includes a brief summary of each of the twelve statements prepared by previous New York commissions and committees. In the course of its work the committee interviewed some thirty associations of the food trade of the city and large numbers of individuals concerned, visiting producers

on their farms and distributors in the city. The report discusses the economic problems of the producer, the manufacturer, the carrier, the distributor, the consumer and the educational and regulatory agencies, and gives also a brief discussion of the increase in the cost of food supplies.

The committee recommends first that the city be most carefully charted *by districts* to show the nationality of consumers, housing conditions; and the location and kinds of wholesale stores, retail stores, storages, food factories, hotels and restaurants, and milk stations. A suggestive district chart is added to show how these facts might be presented. The second recommendation is that there be a central organization of consumers, the duties of which shall be to investigate prices and causes of shortage, and to establish a clearing house for information as to available supplies of food, prices, most economic purchases, variations in diet and the use of the family budget. Third, the committee recommends that joint committees representing the seven factors of the food problem be appointed to coördinate these elements, so that those interested in each phase may appreciate the importance of the others. Especially should these committees "arrange to bring food from the producers to the consumers in the most efficient and economic way."

Not the least striking feature of the report is a tabulation of the whole food problem. The chief divisions given are: (1) production, (2) manufacturing and preserving, (3) transportation, (4) marketing and distribution, and (5) consumption. Each division is carefully divided into sub-divisions. Some suggestions and criticisms might be made as to the logical arrangement and the subject-matter included in these divisions. Producers' marketing organizations might well be added to the list of sub-heads under marketing and distribution and it would seem as if financing the farmer were logically a part of production rather than of marketing. Another general division might be made to include various forms of storage.

LORIAN P. JEFFERSON.

The Bureau of Foreign and Domestic Commerce, of the United States Department of Commerce has issued the following:

Miscellaneous Series:

No. 63, *Trade of the United States with the World, 1916-1917;* Part 2, *Exports* (pp. 317).

No. 67, *The Export Lumber Trade of the United States,* by E. E. Pratt (pp. 117).

No. 68, *Wearing Apparel in Argentina,* by L. B. Clark (pp. 158).
No. 69, *Wearing Apparel in Bolivia,* by W. A. Montavon (pp. 84).
No. 71, *Wearing Apparel in Brazil,* by W. C. Downs (pp. 64).
No. 72, *Consumption Estimates,* reprinted from the *Statistical Abstract of the United States, 1917* (pp. 14).

Special Agents Series:

No. 164, *Textile Market of Chile,* by W. A. Tucker (pp. 52).
No. 167, *Electrical Goods in Bolivia and Chile,* by P. S. Smith (pp. 94).

Special Consular Reports:

No. 81, *Abyssinia. Present Commercial Status of the Country with Special Reference to the Possibilities for American Trade,* by A. E. Southard (pp. 7).

Tariff Series:

No. 39, *British Control of Imports and Exports with Lists of Prohibited Goods,* June, 1918 (pp. 32).

Bulletin 136 from the Bureau of the Census is *Stocks of Leaf Tobacco and the American Production, Import, Export, and Consumption of Tobacco and Tobacco Products, 1917* (Washington, pp. 44); and there is also a bulletin on *Cotton Production in the United States, Crop of 1917* (pp. 39).

The federal Bureau of Mines presents a technical history and account of *Gold Dredging in the United States,* prepared by Charles Janin (Washington, 1918, pp. 226).

The United States Shipping Board has prepared a pamphlet, *Shipping Facts* (pp. 16), which gives information as to the progress of its construction plan and the relative rate of ship construction in this and allied nations as compared with submarine losses, revised to September 1, 1918.

The Federal Trade Commission has made its report on *Canned Foods* (May 15, 1918, pp. 103) and a summary of its report on the *Meat-Packing Industry* (July 3, 1918, pp. 51).

There has recently appeared *Statement of Swift and Company* (Chicago, Aug. 17, 1918, pp. 29) giving a summary of the report of the federal commission on the meat packing industry.

The chairman of the Federal Trade Commission, in response to a Senate Resolution of June 10, 1918, transmits a letter on *Profiteering* (Sen. Doc. No. 248, 65 Cong., 2 Sess., pp. 20).

L. B. Zapoleon has prepared for the United States Department of

Agriculture a study on *Geographical Phases of Farm Prices: Corn* (Washington, Bull. No. 696, pp. 53).

A further contribution to price studies has been made by J. B. Warner, of the federal Department of Agriculture, in *A Study of Prices and Quality of Creamery Butter* (Bull. No. 682, July 15, 1918, pp. 24).

The Continental and Commercial National Bank of Chicago continues its annual summary of the *Crop Reports and General Business Conditions,* for 1918 (pp. 21). There are maps showing wheat and corn production for the year.

The National City Bank of New York reprints an address delivered before the Virginia Bankers Association by Stephen H. Voorhees on *The War and Its Effect on World Trade* (pp. 26). This subject is also treated by G. A. O'Reilly, of the Irving National Bank, in the June issue of a bulletin of that institution, *Trade and the War* (pp. 29).

The College of Agriculture of the University of Arizona has published *A Study of Marketing Conditions in the Salt River Valley, Arizona,* by J. H. Collins (Tucson, March, 1918, pp. 69).

Dun's International Review has prepared a *Directory of Government Organizations Concerned with the Building Trade* (290 Broadway, New York, pp. 16).

Corporations

THE VALUATION OF THE TEXAS MIDLAND RAILROAD. Four years and a half after the passage of the Valuation act, the Interstate Commerce Commission published its first valuation report. This report covering the property of the Texas Midland Railroad, though not stating definitely the commission's rulings on all the elements of value enumerated in the act, is issued as an order "made as to basic facts in the final valuation." In this respect it serves as a precedent for all future valuations and will stand unless changed by judicial decisions.

The actual sum of value resulting from the "findings as to underlying facts" is yet to be fixed. The commission for this purpose is to hold further hearings. The representatives of the various state railroad commissions for some time have contended that the Valuation act did not authorize the finding and reporting of a single sum of values for any individual railroad property. This contention the commission denies in so far as the valuation is for purposes of regulation under

the Interstate Commerce act. The application of the final valuations, therefore, is to be limited to questions involving reasonal rates and practices. The extension of the use of the figures to other purposes, such as taxation, rentals, government operation or condemnation therefore requires further legislation.

The Texas Midland valuation report contains a thorough analysis of the methods and policies followed in obtaining the so-called three "cost-values"; *viz., Original cost to date, Cost of reproduction new,* and *Cost of reproduction less depreciation.* In the main, the commission adopted the theories already worked out by its valuation department. This means that the leading contentions of the railroads on the important unsettled valuation questions have been rejected. A final appeal to the federal courts (provided for in the Valuation act) is now required if the carriers decide to continue to contest the theories of the commission. Otherwise, the forthcoming valuations of all the railroads subject to the Act to Regulate Commerce will merely consist of applying the dollar mark to the property items in accordance with the commission's established "findings as to underlying facts."

As a basis for determining original cost to date the commission proposes to rely as far as practicable on available records of actual construction outlays. This involves the proper analysis of accounting data; a seriously complicated and difficult task for even so small and recently constructed a railroad as the Texas Midland. The commission's valuation department, after employing accountants during several years at heavy expense to the government, reported that original cost of road of the Texas Midland could not be found. Director of Valuation Prouty even went so far as to suggest that the section of the Valuation act requiring the ascertainment of original cost to date be repealed. However, the commission's report, holding that original cost to date "is a factor of prime importance," places the figure for the Texas Midland as $2,892,360.94. This sum is "within close limits of accuracy the maximum amount of money which the carrier, its predecessor or any other person or persons *invested* in the property, as representing the *maximum* original cost to date thereof" (p. 9). Investment is thus accepted as a substitute for actual construction cost, though it was pointed out by a member of the commission itself at one of the valuation hearings that "cost" and "investment" are not identical. Each represents a different concept. Moreover, in accepting the figures of investment as representing *maximum* cost, the commission is led to construe the phrase "each piece of property owned

or used by a carrier" in the act as referring to the various sections of the railroad rather than to the individual property items; such as rails, ties, signals, and the like (p. 8).

In carrying out the provision of the Valuation act regarding the determination of cost of reproduction *new*, the basis finally adopted from among the many proposed by engineers, economists, accountants, and lawyers is that which assumes the non-existence of the railroad with all the other conditions in the same territory taken as existent on valuation date. Theoretically this is comparatively simple, and if accepted by the railroads and the representatives of the state public utility commissions will do much toward establishing a uniform basis for future valuation estimates. Several of the state commissions, however—notably the Minnesota Railroad and Warehouse Commission—opposed this theory of reproduction cost on the ground that it is contrary to the *Minnesota Rate Cases* decision of the Supreme Court. However, the commission clearly points out (on page 14 of the Texas Midland report), that notwithstanding the Minnesota Rate Decision specifically stated: "The assumption of its [the railroad's] non-existence, and, at the same time, that the values that rest upon it remain unchanged is impossible and cannot be entertained." The Supreme Court in a number of cases has accepted present prices of property as a basis of reproduction cost.

In assuming reproduction cost as based on present conditions, however, the commission limits the application of its theory. The present value of lands based on existing conditions is rejected. This is done on the ground that, in the language of the *Minnesota Rate Cases* decision, "cost of reproduction method is of service in ascertaining only the present value of the *plant*." The word *plant* is construed as excluding real property and therefore should not be applied to railroad rights of way, yards, and terminals.

Excluding lands from the theory of reproduction cost necessitates a separate basis of valuation for this important item of railroad property. Here, again, an interpretation of Justice Hughes's language in the *Minnesota Rate Cases* decision serves as a guide to the commission. After a detailed discussion of the whole problem (covering pages 52 to 65 of the report), the conclusion is reached that "the present cost of condemnation and damages, or of purchase of a carrier's lands (the ascertainment of which is required by the valuation act) cannot be estimated." The Texas Midland Railroad's lands, therefore, are merely given a *present* value, "determined from the present fair average value of similar adjacent and adjoining lands,

due allowance being made for any special values which may attach by reason of the peculiar adaptability of the land to railroad use."

In solving the problem of "reproduction cost less depreciation," the commission confirms the policies already adopted and applied by the engineering board of its valuation department. Thus, the ties in the tracks of the Texas Midland are valued at 50 per cent of replacement cost. Rails, bridges, trestles, signals, and other perishable structures are similarly depreciated on the theory that each individual item of property has a limited "service life," and that the period of that service life already past in relation to the estimated total period entails a proportionate lessening of worth of the item, due consideration having been given to salvage values. In other words, it is assumed that each item in a railroad structure contains when new a certain number of "units of capacity for service." Depreciation covers the decrease in the number of the units as compared with those existing in the same elements when the property is installed. This theory of depreciation of railroad property has been strenuously contested by railroad representatives on the ground that estimates of worth should not apply to individual items but should relate to the property as a whole. As long as a structure is well maintained through constant repairs and renewals of parts no limit can be placed on the service life. Consequently, there is no depreciation.

Many of the minor valuation problems over which the opposing parties at interest have wrangled during the last half decade receive their first formal solutions by the Interstate Commerce Commission in the Texas Midland valuation report. In most instances, the policies already tentatively formulated and adopted by the valuation department of the commission, which has been steadily at work during the last four years, have been upheld. Accordingly such "other elements of value" as contingencies, going concern, franchises, deficits in operation, and the like have not been allowed in the Texas Midland valuation. All these matters undoubtedly will be brought to the federal courts for final adjudication. The Valuation act specifically provides that the United States circuit courts hear contested cases of valuation. Unless the present war conditions, with government railroad administration, interferes with the policies and rights of the railroad owners, an extended period of litigation is very probable.

A. M. Sakolski.

The Director General of Railroads, William G. McAdoo, under date of September 3, 1918, made a *Report to the President* on the

work of the United States Railroad Administration for the first seven months of its existence, ending July 31, 1918 (Washington, pp. 32).

The Street Railway Investigation Commission of the Commonwealth of Massachusetts has made an exhaustive *Report on the Problems Relating to the Street Railways* in that state (Boston, 1918, Pub. Doc. No. 300, pp. 423). This contains sections on depreciation in the purchasing power of the nickel, growth of the automobile business, taxation and highway maintenance requirements, failure to provide for depreciation and obsolescence, and recommendations. In the appendix some 20 pages treat of municipal ownership of street railways in the United States and in Canada and a chapter of 25 pages summarizes street railway conditions in foreign countries.

The *Report on a Rapid Transit System for the City of Detroit Made to the Board of Street Railway Commissioners* by Barclay, Parsons & Klapp (60 Wall St., New York, 1918, pp. 123) contains a large number of interesting tables and diagrams showing the density of population and the outward residential movement, traffic growth, residential distribution of population, and method of financing.

The *Opinion and Order* in the matter of the application of the Baltimore County Water and Electric Company for permission to change and readjust its schedule of quarterly minimum charges or rates on metered water supply service, Case No. 375, presented to the Public Service Commission of Maryland, has been published by that commission (Order No. 4425, July 25, 1918, pp. 78); and *Opinion and Order* in the matter of the complaint of the Public Service Commission of Maryland against the Consolidated Gas, Electric Light and Power Company of Baltimore, in respect to the fairness and reasonableness of certain industrial power rates (Order No. 1492, Aug. 9, 1918, pp. 59).

There has also been issued as a separate the report of the commission's expert upon the *Incidence of Rates of the Baltimore County Water and Electric Company* relating to the case above mentioned (N. S. Hill, Jr. and S. F. Ferguson, Consulting Engineers, 100 William St., New York, pp. 42).

The *Second Annual Report of the Commission on Waterways and Public Lands* of Massachusetts, for 1917 (Boston, Pub. Doc. No. 118, 1918, pp. 132) contains a brief memorandum on the necessity for creating coal reserves at tidewater terminals.

The Board of Gas and Electric Light Commissioners of Massachusetts has printed in pamphlet form *New Legislation of Especial*

Interest to Gas, Electric and Water Companies and Municipalities Owning Lighting Plants, 1918 (Boston, pp. 24).

Public utility reports received are:

Eleventh Annual Report of the Public Service Commission, Second District, New York, vol. 2, which contains abstracts of reports of corporations (Albany, 1918, pp. 300).

Eighth Annual Report of the Board of Public Utility Commissioners of New Jersey for the year, 1917 (Trenton, 1918, pp. 248).

Financial and Miscellaneous Statistics compiled from the annual reports made by public utilities to the Board of Public Utility Commissioners of New Jersey for the year 1916 (Trenton, 1918, pp. 234).

Brief against the Application of the Public Service Railway Company for an increase of rates, prepared by Marshall Van Winkle and George L. Record, of counsel for the New Jersey State League of Municipalities and the Municipalities Members of that League (pp. 218).

Labor

The following bulletins have been received from the federal Bureau of Labor Statistics:

No. 231, *Mortality from Respiratory Diseases in Dusty Trades (Inorganic Dusts),* by Frederick L. Hoffman (Washington, June, 1918, pp. 458).

No. 236, *Effect of the Air Hammer on the Hands of Stonecutters* (July, 1918, pp. 147).

No. 238, *Wages and Hours of Labor in Woolen and Worsted Goods Manufacturing, 1916* (June, 1918, pp. 154).

No. 239, *Wages and Hours of Labor in Cotton Goods Manufacturing and Finishing, 1916* (April, 1918, pp. 258).

There has been published *Hearings before the Subcommittee of the Committee on the District of Columbia,* H. R. 10367, providing for the establishment of a minimum wage scale in the District of Columbia for women and children (Washington, April 16, 1918, pp. 44).

The Bureau of Industrial Code (230 Fifth Ave., New York) of the State Industrial Commission of the New York Department of Labor has issued bulletins on the following subjects: No. 15, Rule relating to smoking in protected portions of factories and special classes of occupancies; No. 16, Rules relating to mines and quarries; No. 18, Rule relating to lighting of factories and mercantile establishments; No. 19, Rules for the guarding of dangerous machinery, vats, pans

and elevated runways; No. 20, Rule relating to automatic sprinkler systems; and No. 21, Rule relating to window cleaning.

A special bulletin of the Department of Labor of New York State gives the *New York Labor Laws Enacted in 1918* (Albany, pp. 71).

The *Fifth Annual Report of the Minimum Wage Commission of Massachusetts* for 1917 (Boston, Pub. Doc. No. 102, pp. 51) has a paragraph on the minimum wage regulation in foreign countries, 1914-1917, and also a page on the minimum wage legislation in the United States in 1917. An account is given of the work of the wage boards recently organized in the clothing and furnishing trades. Report is made on the enforcement of past minimum wage determinations.

This commission has also published a pamphlet on *Wages of Women Employed as Office and Other Building Cleaners in Massachusetts* (Boston, May, 1918, pp. 36); and a statement and decree concerning the wages of women in retail millinery workrooms in Massachusetts (pp. 6); also a statement and decree concerning the wages of women in muslin underwear, petticoat, etc., and children's clothing factories in Massachusetts (pp. 6).

Money, Credit, and Banking

Depreciation of Currency in Germany. The following is a translation of an article by Professor Lujo Brentano which appeared in the *Berliner Tageblatt,* August 2, 1918, "Ueber die Geldentwertung, ihre Ursachen und Abhilfe."

Wise words were recently spoken by the Minister of Finance of Wurtemberg in his speech upon depreciation. He thought that the depreciation of money would be neither an advantage nor a disadvantage if it caused a more general and uniform increase of prices. That is a truth often emphasized, in the days when people believed that wealth consisted in money, by the opponents of the mercantile system, which tried to create a favorable balance of trade because it brought money into the country. These opponents objected that the increase of money raised prices. Even allowing that people received twice as much for their merchandise as before, they were obliged to pay twice as much for what they bought; and, as the rise in prices was universal and uniform, people were neither better nor worse off than before. But prices never do rise universally nor uniformly. The increased prices of indispensable commodities cause a majority of the people to limit their purchases of dispensable commodities.

The producers of the latter encounter a decreased demand. This prevents their raising prices to correspond to the depreciation of money and the result is that, while some profit by depreciation, others suffer. The heaviest hardship is inflicted upon those who receive fixed incomes.

The increase in prices that occurred before the war on account of our alleged protective policy had already impressed this truth upon the classes receiving fixed incomes and upon many producers of dispensable goods. What we experienced on a small scale at that time, the German nation is now experiencing on a vast scale; and what the adherents of the new science of economics advanced against old mercantilists, is the very argument that the Wurtemberg Minister of Finance is now repeating. The only difference is that the old pioneers of scientific economics had a lighter task in one respect. The money, the abundance of which caused the depreciation which they discussed, consisted of the precious metals. It flowed, like all other physical commodities, to the market where it had the highest value, and soon left for other countries to pay for wares which those countries sent to the market where prices had risen most. Our money, however, consists in printed tokens. No one will accept it abroad unless it be the inhabitants of the occupied territories; and the circulation in those districts, instead of lessening the volume of paper in circulation, is one of the causes for its increase and consequently for its further depreciation. For, as the Wurtemberg Finance Minister justly says, our present depreciation is due primarily to the imperial government, which pays out tokens for its purchases. The more the empire pays out, the more tokens in circulation. The depreciation started with the imperial government and first expressed itself in the prices of the most urgently needed commodities, those required for warfare, and extended itself, through the increased purchasing power of all who sell to the empire, to other classes of commodities. The producers of these commodities are benefited. But an injury is inflicted upon another large group because a great majority of the people must pay more for indispensable goods and the demand for dispensable goods declines. The producers of these latter cannot raise prices to correspond to the depreciation that has occurred in the value of money. Many of them must cease producing the articles they previously made and go into other lines of business. But there is no remedy for the hardship inflicted upon people of fixed incomes. Finally, the increase of prices caused by the depreciation of money is reinforced by the increase caused by scarcity of goods arising from lack of raw materials and labor.

However, the imperial government is not exculpated for its responsibility by referring this result to natural economic laws; since, in order to pay its obligations, it has caused paper tokens to be printed in such abundance that the legal currency in circulation has risen since the 22d of July, 1914, from about 2,250,000,000 to 19,250,000,000 marks.

Above all, the officials who have bought goods from war contractors for the imperial government—as we know from the Daimler scandal and other instances—have in many cases agreed to the prices demanded by these contractors uncritically; so that the latter merely had to make a demand to have it granted. The conduct of the war contractors proper has found imitators among other sellers, especially food producers. Prices have risen extraordinarily. Thereupon out of consideration for the fact that the masses of the population could not pay these prices, maximum prices have been fixed in order to prevent popular unrest. But what did Byron sing back in the Age of Bronze?

> Their patriotism, delicately nice,
> Falls in proportion with the market price.

Food producers declared that maximum prices lessened production and their produce disappeared from the market. Maximum prices became minimum prices and had constantly to be increased. But the patriots continued to be dissatisfied. They evaded even the increased maximum prices by selling at still dearer rates privately. Consequently, in order to get anything, those who had means paid still higher prices. Eventually the municipal governments began to complain that this underhand trade forced their citizens to pay exorbitant prices. This resulted in the imposition of penalties for illegal trade. But the experience is centuries old that penalties accomplish nothing against profiteering and usury. Quite the reverse. Traders raised their prices to cover the risk. Thereupon, in order to lessen the temptation to violate the law, the maximum prices were raised still further.

But every increase in prices made more money necessary in order to pay them. Paper circulation increased and every increase in the circulation again reacted to raise prices. We thus started an endless screw revolving and we cannot foresee any end to the process unless we resolutely reverse the screw's direction.

This can be brought about successfully only by removing the two causes of exorbitant prices: the scarcity of commodities and the superfluity of legal tender. The scarcity of commodities, so far as it is due to lessened production on account of lack of raw materials and labor, cannot be remedied until peace comes. The situation is differ-

ent, however, in respect to refusal to deliver unless at exorbitant prices. But we must acknowledge that even here we encounter invisible obstacles with respect to which every one is silent but every one is complacent. In Germany we are familiar with the word "compulsion" in every field except this one. The other means of remedying the situation would be to reduce the volume of legal tender. The German Imperial Bank has recently attacked this problem by encouraging the settlement of accounts without actual payment in money—that is by substituting payments by check for payments in cash. This is excellent. The German people are by no means unfamiliar with this method of settling accounts. But, although the settlements thus made have increased during the war, so that the checks of private individuals passing through the Imperial Bank have risen from 303 billion marks in 1914 to 788 billion marks in 1917 and corresponding increases have occurred in case of other institutions receiving check deposits, these are only a small fraction of the account settlements for the whole German empire. Great efforts are being made to familiarize all classes of people with this method of paying bills. All that is excellent. The measures taken are appropriate—the campaign of education among the people, the definite instruction as to the use of checks, the addresses at meetings and assemblies, the pamphlets, placards, advertisements distributed and posted, the exhortations of bankers, clergymen, and teachers. Nevertheless, although what a man does from inner conviction is much more valuable than what he does from external compulsion, I fear it will take four years more of warfare to bring about much progress in this line. Meantime the situation is an acute one. Our present embarrassment must not become chronic. I would not like to write what may happen in that case. But why cannot Germany adopt a measure that no other country could adopt, but that we can carry out with assured success? There is no other country where the people are so obedient to the government as our own. We have not always made commendable use of this disposition to obedience; but why not utilize it now where it can bring about instantaneous relief? Why not demand that the hundreds of thousands of persons employed in the public service establish deposits, either at the postoffice or at some bank of deposit, by paying their salaries in deposit slips rather than in currency? Why not go further and follow the example of the city government of Munich so that the empire, the federal states, and the municipalities, will do no business with contractors except through bank accounts? Such a measure would do a great deal to establish the settlement of accounts without the actual

transfer of money; for the most important transactions would be included within these categories and legal tender would be employed only for minor purchases. This would practically do the business.

We must go still further in the way of simplification. Several years ago the taxation system of Bavaria was reorganized. At that time I suggested to the Financial Minister, in the course of a promenade, how it would simplify administration, and economize in the matter of idle money, if the Royal Bank at Nuremberg, with its network of branches all over Bavaria, were coupled up with the tax-offices and the post-offices. This would create branch offices of the bank in every little village and greatly lessen the amount of idle money. The tax-office would merely assess the taxes and charge them to the appropriate branch of the bank which would deduct it from the account of every taxpayer in its district. The money would then be transferred from the local account to the account of the government. The Minister pondered a moment and then replied, "Yes, we could manage it that way." But since any simplification in the machinery of government renders unnecessary the services of some employees, and since our economic system is dominated by the idea that the consumer exists for the sake of the producer—and consequently many regard that the citizens exist for the sake of the officials—so radical a measure could not be got through parliament.

But even though it may be impossible to put through such a radical reform in the administrative organization the mere paying of government salaries in checks or bank deposit slips and the refusal of the government to do business except with bank depositors, would immediately reduce our metallic and paper tender and would erect an effective barricade against the increasingly threatening calamity of ruinous depreciation.

Three weeks later, under date of August 24, there appeared in the same journal a further contribution on this subject, entitled "Ein Schulfall für die Geldentwertungstheorien" (Classroom Example of Currency Depreciation Theories), by Dr. August Behrens.

German sugar purchases in Ukraine have renewed our interest in exchange problems and their connection with currency depreciation. The depreciation of money in Ukraine has reduced the purchasing power of the ruble to one sixth or less. But, at the same time, the ruble exchanges with us at a figure corresponding to a depreciation of less than one half its purchasing price. Consequently, we are able to buy goods in the Ukraine only at prices that are beyond all reason

and consequently we must limit our purchases to what is absolutely necessary until a more rational condition is established. The position that we and certain other nations find ourselves in with respect to the Ukraine is, in a sense, an economic curiosity. Ordinarily when the money of a country depreciates the exchange falls abroad. In the first place no foreigner has a motive to purchase exchange on that country because he does not get value received. On the other hand, as soon as the exchange rises abroad beyond the domestic rates, a flow of money starts to the better market which quickly brings down the foreign rate to the domestic standard. Quite apart from this peculiar circumstance, however, the depreciation in the Ukraine presents other typical peculiarities which make it a splendid class-room example for many theories, and offers, so to speak, a laboratory experiment in such theories. In the first place, the principle is confirmed that money depreciation begins as soon as the purchasing power expressed in money or in substitutes for money or in credit becomes out of proportion to the existing economic values—*i.e.*, to merchandise including raw materials, to human labor, and to productive investments. The way this relation has demonstrated itself in the Ukraine is clear to any one who takes a casual glance at the newspapers. War and civil war have discouraged productive investments and stripped the country of raw materials and merchandise. Even human labor power is wanted; for the hands that are there are unemployed under the existing uncertain conditions, because they fear that the reward for their labor will be taken from them. There is, to be sure, some agricultural produce, but it falls far short of balancing the means of payment available. . . .

A second monetary principle recently propounded by Professor Brentano, to the effect that, as large circulation of paper money causes depreciation, so the substitution of payments without the employment of money tends to reduce it, is only confirmed in a qualified manner by the situation in the Ukraine. The country has been flooded with paper money by friends and foes alike and, since every one has all he wants but has not the physical property he wants, the man who has merchandise can demand as many bills as he desires. If there were fewer bills and instead of them more bank deposits, it is certain that less money would be circulated. But this would be because the Ukrainian peasant would never think of selling a goose or any other property for a check, no matter how secure the bank on which it was drawn. The situation would be quite different in a country where the people occupied a higher plane of business intelligence. In that case it would

hardly be important whether the purchasing power were in metallic currency or bank notes or checks. A war profiteer doesn't care whether he pays his 10,000 marks for a diamond ring or a Westphalian ham in checks or bills. Consequently, Brentano's theory holds good only for countries like the Ukraine, where people are free with the money in their pockets but can not so easily draw on their bank accounts.

It is difficult to see whether the theory of the endless screw, which is likewise championed by Professor Brentano, is supported by Ukrainian experience, though it probably is. According to his theory the original disproportion between supply of economic values and instrumentalities of payment, which is the cause of inflation, is accentuated by the fact that the government authorized very high prices at the beginning of the war, that producers increased their prices to agree with those of government contractors, that the working people followed suit, and that little by little the whole population became involved in the upward price movement, that this caused public contractors to demand still further increases of prices from the government on the ground of the general rises, and so on, round the circle interminably. One would suppose that the process would be stopped after the first circle was completed by the government's refusal to increase prices on the ground that the government's prices were the original cause of the general rises. In practice, however, this does not happen for two reasons. The first is that the government wants to get goods quickly and is therefore willing to make concessions. The second reason is that a man who raises prices, because the man immediately before him in the chain of production or trade has raised prices, adds something additional to the increase imposed by his predecessors, so that by the time the circle is completed an actual increase in prices above that originally created by the government contractors has occurred. The theory of the endless screw has certainly some arguments in its favor and is confirmed to some extent in the Ukraine. However, we cannot follow Brentano so far as to affirm that the government's using its "printed paper tokens" to favor these high prices, is the original cause of the trouble.

Coming now to the influence of currency depreciation abroad, we have already said that conditions in the Ukraine have taken an unusual course and consequently it is better first to consider what normally occurs. Every depreciation of currency should be followed by a decline in the value of that currency abroad except when the country where the depreciation occurs has such a large gold reserve that it can pay its bills in gold on demand and is willing to permit that gold

to be exported. If that is possible these notes will be purchased abroad at par because the purchaser can get gold to the full value of the note, or considerably more than if he bought goods with the note and converted them into gold. Naturally this is an assumed instance, for no such case would actually occur and, if it did occur, it could not continue for an appreciable period. . . . How does it happen then that in spite of the depreciation of currency in the Ukraine, exchange upon that country can be bought at only a relatively high rate? We might think of the possibility that, since the ruble is current not only in Ukraine but over a large part of the former Russian empire, the depreciation might not be as great in other territories as in the Ukraine, and this condition would counteract the influence of the latter country. This explanation does not hold good in the present instance. In the first place, the depreciation is as great in other parts of Russia as in Ukraine and, were this not so, the ruble would leave Ukraine for those other districts. The reason for the high exchange rate of the ruble is due to another cause—a cause independent of ordinary financial motives but dependent upon the breakdown of international trade through the war. The ruble has depreciated elsewhere as well as with us, but in order to get rubles we have to pay high prices on account of certain war conditions and these prices reflect themselves in exchange rates. Russia forbids the exportation of rubles and this artificially lessens the supply abroad. In the second place the transportation of money in Russia has become such a dangerous undertaking during the existing disorders that most of our rubles reach us by indirect routes through neutral countries. These conditions increase the cost of procuring them and make them a relatively dear medium of payment by the time we receive them.

Translator's note.—Does it not appear that the Central Powers have been unable, either through lack of commodities to exchange or through inability to establish credits in the Ukraine by other measures, to create a favorable balance of trade with that country?

THE EQUATION OF EXCHANGE FOR 1917, as calculated by the usual method is:

$$\begin{array}{ccccc}
\overbrace{\text{Money} \times \text{its velocity}}^{\text{Circ. of money (61)}} & + & \overbrace{\text{Deposits} \times \text{their veloc.}}^{\text{Circ. of checks (951)}} & = & \overbrace{\text{Trade} \times \text{scale of prices}}^{\text{Value of goods bought (1012)}} \\
M \times V & + & M' \times V' & = & T \times P \\
2.02 \times 30 & + & 10.30 \times 92.4 & = & 595 \times 170 \text{ per cent.}
\end{array}$$

That is, the money in actual circulation (*i.e., outside of banks and the United States Treasury*) was 2.02 billions of dollars and changed

hands about 30 times in the year, thus effecting 2.02 x 30 or 61 billions of exchanges; the volume of deposits subject to check was 10.30 billions and changed hands about 92.4 times in the year, thus effecting 10.30 x 92.4 or 951 billions of exchanges, the two together making a total of 61 + 951 or 1012 billions. This paid for a volume of trade of 595 billion units (a "unit" of trade being that amount of goods which in the base year, 1909, was worth $1), at prices 70 per cent higher than the prices of said base year, so that 595 x 170 per cent is also 1012.

Compared with 1916, the only important changes were in the velocities of circulation and the price level. The volume of trade remained about the same (that in commodities increasing and that in stocks decreasing). There was the same contrast in the price movements of these two items, the rise of commodity prices being much more important than the fall of stock prices.

For the first six months of 1918 similar discords are found. Commodity transactions apparently fell off while stock sales increased and commodity prices rose while stock prices fell.

With such cross currents as have been manifest in 1917 and 1918, the estimates of the net movements are necessarily much less exact than usually.

I defer publishing the usual diagram until the figures for 1918 are available.

IRVING FISHER.

Hearings before the Committee on Banking and Currency, United States Senate, Sixty-fifth Congress, Second Session, on Senate Bill 3928, relating to a federal reserve foreign bank to stabilize the dollar exchange in neutral countries, have been printed. These hearings were held in June, 1918 (Washington, pp. 367).

A brief statement on *Banks Incorporated under State Laws as Members of the Federal Reserve System* has been made by Russell B. Spear, assistant federal reserve agent of the Federal Reserve Bank of Boston (1918, pp. 245).

There has been received from T. A. Polleys, tax commissioner, a statement to the tax commission of South Dakota on behalf of the Chicago and Northwestern Railway Company on July 22, 1918 (Pierre).

Bank reports received are: *Annual Report of the State Bank Commissioner of Colorado, 1917* (Denver, 1918, pp. 245); and *Report of the Bank Commissioner of Connecticut, 1917,* (Hartford, pp. 620).

Public Finance

The hearings before the Committee on Ways and Means of the House of Representatives with reference to *The New Revenue Bill* have been issued in 29 parts (Washington, June 7-Aug. 15, 1918, pp. 2,115).

The United States Tariff Commission has prepared the following pamphlets in the Tariff Information Series:

No. 2, *The Dyestuff Situation in the Textile Industries* (Washington, 1918, pp. 28).

No. 3, *Silk and Manufactures of Silk. Schedule L.* (pp. 163).

No. 4, *The Button Industry: Tariff Legislation—Commercial and Industrial Conditions in the United States and in Foreign Countries—Court and Treasury Decisions—Statement from Associations and Leading Manufacturers* (pp. 125).

No. 5, *The Glass Industry as Affected by the War* (pp. 147).

The pending *Revenue Bill and Report* of the House of Representatives submitted September 3, 1918, has been printed as Document No. 1267, 65th Congress, 2d Session.

The Legislative Reference Division of the Library of Congress has prepared for the use of the Committee on Ways and Means *Comparison of Rates of Tax in United States, Great Britain, Canada and France*: I. Articles of ordinary consumption; II. Articles of pleasure, recreation, and adornment; III. Entertainments and clubs (pp. 24).

The federal Bureau of the Census has made a report on *Specified Sources of Municipal Revenue,* including special assessments, business taxes other than on the liquor traffic, general license taxes, and license taxes on dogs, in cities having a population of over 30,000 (Washington, 1918, pp. 140).

Relating to the liberty loan are the following three pamphlets: Hearings before the Committee on Ways and Means of the House of Representatives on the *Fourth Liberty Bond Bill* (June 27, 1918, pp. 48); *Supplementary Bond Legislation* (Rept. No. 778, 65 Cong., 2 Sess., pp. 5); and *Report of the National Woman's Liberty Loan Committee for the Third Liberty Loan Campaign* (Washington, Treasury Dept., 1918, pp. 32).

Advance sheets have been received of the preliminary report of the committee appointed by the National Tax Association to prepare a

plan of a model system of state and local taxation, submitted to the Twelfth Annual Conference held in November, 1918 (pp. 45).

A reprint has been made of a paper read by Harvey S. Chase before the Dominion Association of Chartered Accountants at Montreal, September 19, 1918, on *Governmental Sinking Funds, Serial Bonds and Depreciation Reserves* (pp. 18).

The Operation of the Massachusetts Income Tax for the First Year, 1917 is reprinted from the Tax Commissioner's Report under date of April 7, 1918 (pp. 33).

There has been received from T. A. Polleys, tax commissioner, a statement to the tax commission of South Dakota on behalf of the Chicago and Northwestern Railway Company on July 22, 1918 (Pierre).

The Guaranty Trust Company of New York has made a reprint of the *Federal Capital Stock Tax* imposed under the revenue act of September 8, 1916, and Treasury Department Regulations No. 38.

Insurance

From the New York State Federation of Labor have been received: *The State Fund vs. Casualty Insurance Companies,* containing argument before the Senate Judiciary Committee in favor of eliminating companies organized for profit from doing business under the provisions of the workmen's compensation law, by F. Spencer Baldwin, manager of the New York State Insurance Fund, and Thomas J. Duffy, chairman of the Ohio State Industrial Commission (Albany, E. A. Bates, secretary, Arkay Bldg., pp. 15).

Health Insurance, official endorsement of the New York State Federation of Labor, with first report of its committee on health (pp. 16).

Third report of the committee on health, entitled *Health Insurance, Advantages to Industry* (pp. 15).

The Industrial Commission of New York has compiled *Workmen's Compensation Law* with amendments, additions, and annotations to July 1, 1918 (Albany, pp. 88).

Court Decisions on Workmen's Compensation Law, August, 1916-May, 1918: Part I, *Constitutionality and Coverage* has been issued by the Department of Labor of New York (Albany, June, 1918, No. 87, pp. 394).

The American Association for Labor Legislation (131 East 23d St., New York) has published a revised edition of *Standards for Workmen's Compensation Laws* (Oct., 1918, pp. 12).